

Activity Hazard Analysis

Guidelines to Acceptance

Operational Risk Management

**The AHA is a form of
Operational Risk
Management:**

- ◆ **Identify Hazards**
- ◆ **Assess Hazards - make risk decisions**
- ◆ **Implement Controls**
- ◆ **Train**
- ◆ **Supervise**

Operational Risk Management

The intent of ORM is to reduce the overall risk in a phase of work. By requiring the contractor to commit to analyzing an activity - identifying the principal steps and the hazards associated with each; establishing hazard controls and training his/her workers; and, providing oversight to ensure AHA compliance - RISK will be significantly reduced.

ACTIVITY HAZARD ANALYSIS

ACTIVITY _____ ANALYZED BY/DATE _____

PRINCIPAL STEPS	POTENTIAL SAFETY/HEALTH HAZARDS	RECOMMENDED CONTROLS
<i>Identify the principal steps involved and the sequence of work activities</i>	<i>Analyze each principal step for potential hazards</i>	<i>Develop specific controls for potential hazard</i>
EQUIPMENT TO BE USED	INSPECTION REQUIREMENTS	TRAINING REQUIREMENTS
<i>List equipment to be used in the work activity</i>	<i>List inspection requirements for the work activity</i>	<i>List training requirements, including hazard communication</i>

Ten Guidelines To An Acceptable AHA

- ◆ The AHA shall be in the proper format.
- ◆ Each principal step of an activity shall be listed.
- ◆ The AHA must be activity specific.
- ◆ Competent/Qualified person is identified in the AHA.
- ◆ Quoting regulations as a step or hazard or hazard control is unacceptable.
- ◆ If hazardous material is used in activity the MSDS for that material must be Attached to AHA.
- ◆ All hazard controls shall be adequate and listed.
- ◆ Crane AHAs must have set-up/set-down hazards controlled.
- ◆ Training/Qualification/Competency training for the activity must be included in the AHA.
- ◆ Will this AHA reduce the overall Safety risk associated with this phase of work/DFOW?

The AHA Shall be in proper format

- ◆ **EM-385-1-1 (Nov 2003) figure 1-6 is the acceptable format for new contracts. It is the same AHA format required by the previous EM-385 edition.**
- ◆ **Each format requires the very minimum acceptable information... adding more information and fields to the AHA is acceptable.**
- ◆ **The analyst's name and Title shall be on the AHA.**

The AHA Shall be in proper format (Cont.)

- ◆ **Any competent/qualified persons associated with the work (scaffolding, excavation, electrical...and so on) in the phase of work/DFOW shall be identified in the AHA.**
- ◆ **All sections must be complete and the AHA shall reduce the overall hazard severity and risk of injury and property damage.**

Principal Steps

- ◆ **Principal steps are just that...the principal steps in the phase of work/DFOW.**
- ◆ **Principal steps can include: locate utilities, lockout circuit 1-B-3C, Excavate trench, erect scaffold, breakdown scaffold, Demo top floor... and so on. Each step has its associated hazards that need mitigating/abatement. Remember the effect of the AHA is reduce risk.**

Principal Steps (Cont.)

- ◆ **Principal steps does not include such things as: breaker bar, sawsall, hammer, forklift, excavator...and so on this is equipment not principal steps.**
- ◆ **Each hazard must be addressed with a corresponding control**

Hazard

The following statements should aid identifying hazards:

- ✓ **Danger of striking against, being struck by, or otherwise making injurious contact with an object;**
- ✓ **slip or trip;**
- ✓ **caught in, on, or between objects;**
- ✓ **fall on the same level or to another;**
- ✓ **strain by pushing, pulling or lifting;**
- ✓ **possibility of electrical, health or fire hazards;**
- ✓ **possibility of employee coming in contact with a hazardous chemical or substance;**
- ✓ **Past experiences.**

Hazard Categories

Struck By(SB)

Struck Against(SA)

Caught Between(CB)

Contact With(CW)

Caught On(CO)

Contacted By(CBy)

Caught In(CI)

Falls on Same level(FS)

Falls Below(FB)

Overexertion(O)

Exposure to Chemicals/

Hazmat, noise,

radiation (E)

**Each
hazard
associated
with a
Principle
Step
should fit
into one of
these
Hazard
Categories**

Recommended Controls

- ◆ **Every hazard shall have a control...design out the hazard; institute engineering controls (interlocks, alarms/strobes, shutdown mechanisms); substitution of alternate energy forms (pneumatic to electrical or vice versa) or less harmful hazardous materials; reduce the amount of energy used or released; place barricades/barriers/guards between the source of energy and the worker or property; modify contact surfaces (higher/lower friction); strengthen the surface or structure.**

Equipment to be used

- ✓ **Drill motor**
- ✓ **Gasoline power generator**
- ✓ **Air compressor**
- ✓ **Construction handtools**
- ✓ **Pneumatic nailer**
- ✓ **Powder actuated nailer**
- ✓ **backhoe**
- ✓ **Circular saw**
- ✓ **Reciprocating saw**
- ✓ **Carpeting handtools**
- ✓ **Forklift**
- ✓ **Frontloader**
- ✓ **Personal fall arrest system**
- ✓ **Trench shields**

Some are hand-tools some are not, but all can cause injury.

Inspection

**Personal fall arrest
Requirements**
systems

Cranes

Forklifts

Trenches/Excavations

LOTO

Project-Site

Scaffolding

Powered hand-tools

**All of these
require a form
of inspection.
All at least
require a daily
inspection,
prior to use.
The
inspections
are conducted
by a
competent/aut
horized
person. Are
inspections
documented?
Does site
supervision
ensure**

Training Requirements

**Personal fall arrest
systems**

Cranes

Forklifts

Trenches/Excavations

LOTO

Project-Site

Scaffolding

Powered hand-tools

APP/AHA

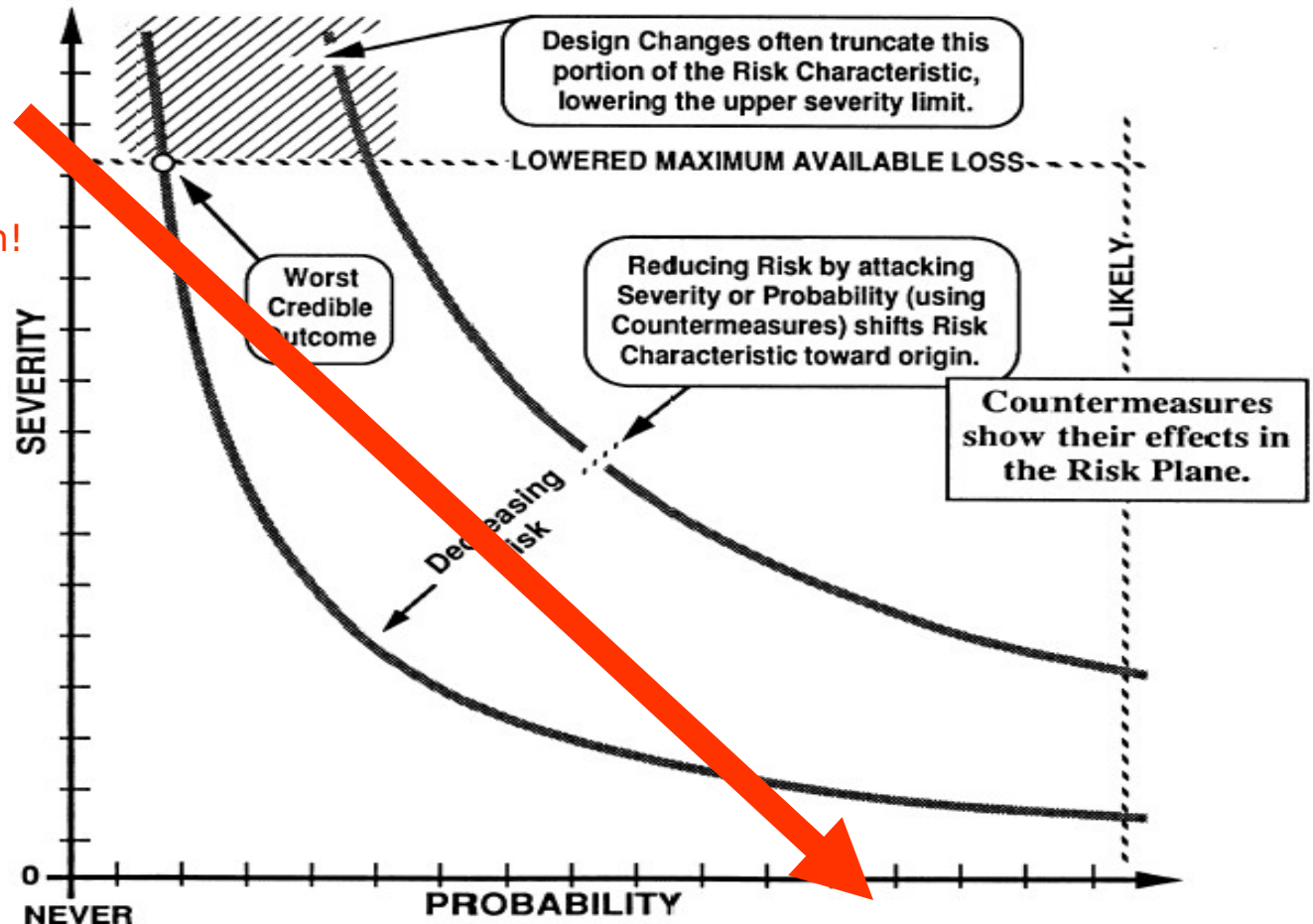
**All of these
these require
training of the
worker.**

**Cranes,
Forklifts
require
training and
certification.
The other
items require
specific
training
associated
with the
unique
characteristics
of the work**

When looking at the AHA, do you sense in your gut that the overall RISK has been reduced, or, do you feel the AHA was submitted to just fulfill a contract requirement.

REDUCING RISK . . .

The AHA should drive the overall RISK down!



Summary

- ◆ **The AHA is a form of ORM**
- ◆ **The contractor must submit an AHA that is complete and detailed to the extent of the complexity of the phase of work.**
- ◆ **It is not acceptable to quote regulations in the AHA - regulations are in the APP and in the code books - the AHA is very site and activity specific...it is customized.**

Summary (cont'd.)

- ◆ **principal steps, identified hazards, hazard controls, equipment used, inspections required, training provided are all components that will overall reduce the RISK of each phase of work analyzed.**
- ◆ **Accept only complete AHAs that address the hazards and reduce the overall risk of the phase of work.**

Conclusio

n ♦ Over the next few months I will be posting AHAs with the minimum required information that should be included in them for particular activities (e.g., Excavation/trenching: location, soil type, competent person/qualified person, depth of ex/tr, length of ex/tr, how long will the ex/tr be open, what protection measures to protect the workers will be used if entry is required...) on the Safety website.

Conclusion (Cont'd.)

**If you have any questions about
this presentation please
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